



Information Interoperability and Supportability

The Chief Information Officer Perspective

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Director, Architecture and Interoperability
ASD(C3I) and DoD CIO

What I'm Going To Talk About

- The CIO's stake in interoperability
- Where we are today
- What are we doing to help improve the situation
- The Way Ahead: moving beyond interoperability
- What are the barriers to success

DoD CIO's Interoperability Stake

10USC Sect. 2223

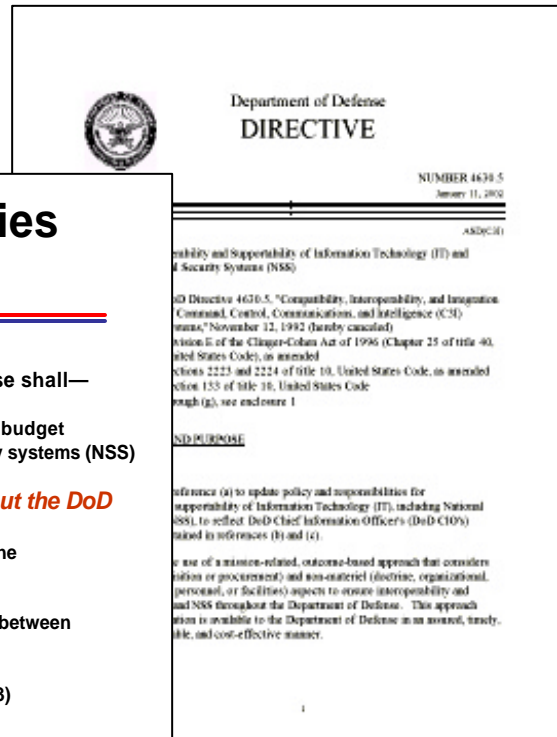
DoD CIO Responsibilities Under Title 10

The Chief Information Officer of the Department of Defense shall—

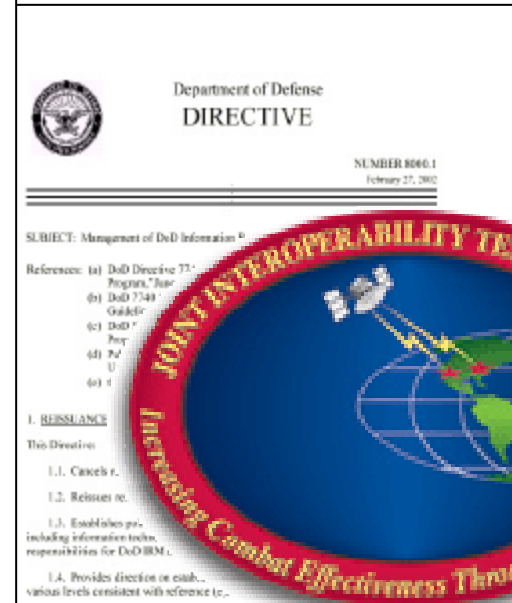
- Review and provide recommendations to the SECDEF on DoD budget requests for information technology (IT) and national security systems (NSS)
- **Ensure the interoperability of IT and NSS throughout the DoD**
- **Ensure that IT and NSS standards that will apply throughout the DoD are prescribed**
- Provide for the elimination of duplicate IT and NSS within and between the MILDEPs and Defense Agencies

(10 USC, Section 2223)

DoDD 4630.5



DoDD 8000.1



ASD(C3I)
Direction & Control

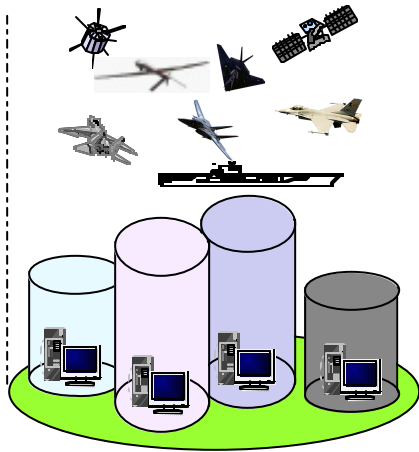
"If you are not interoperable, you are not on the net, not contributing, not benefiting and you are not part of the information age"

VADM Art Cebrowski, Director
Office of Force Transformation.

A Necessity: Interoperability

Today

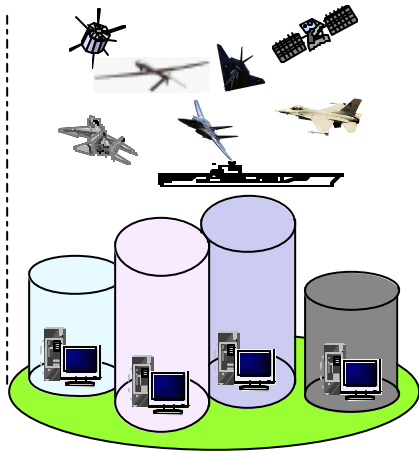
Traditional Stove-Pipe Operation



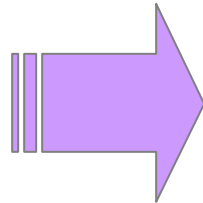
Islands of Joint situational awareness primarily composed of Red and Blue force location information with various latencies.

A Necessity: Interoperability

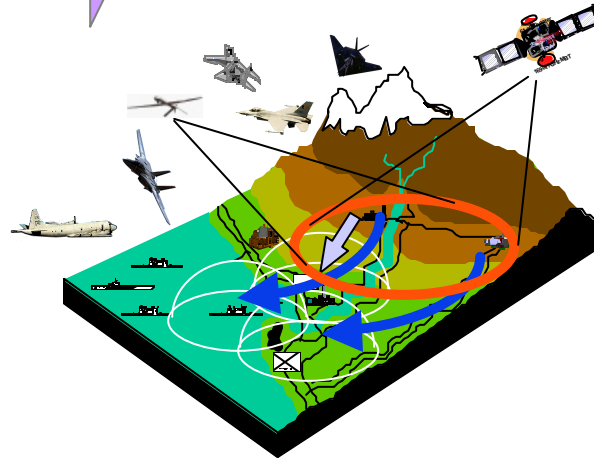
Today
**Traditional Stove-
Pipe Operation**



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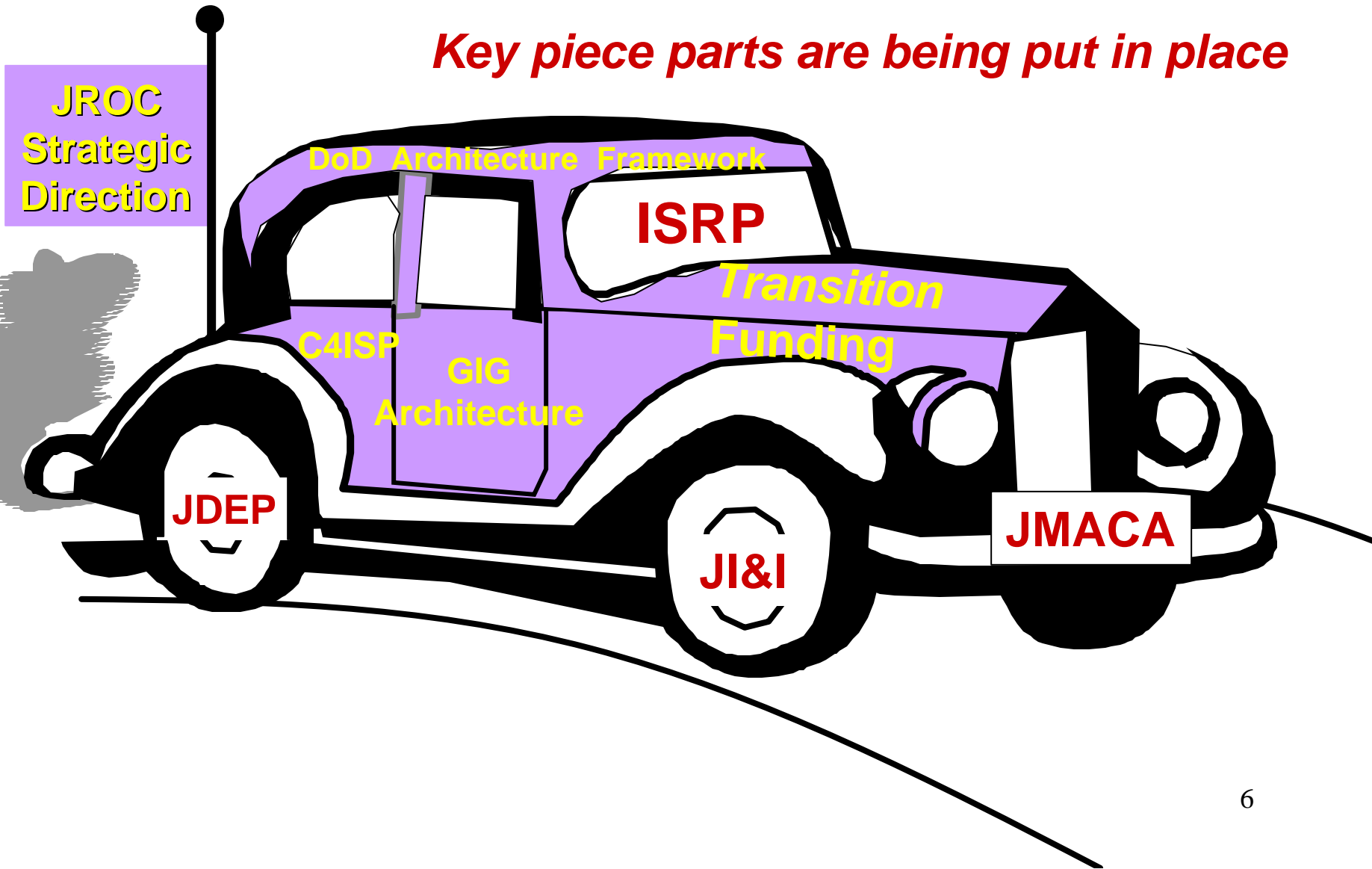
FY03-07
**Interoperable
Transformation**



Systems, units or forces provide **(pre-engineered) services** to and accept services from other systems, units or forces ...

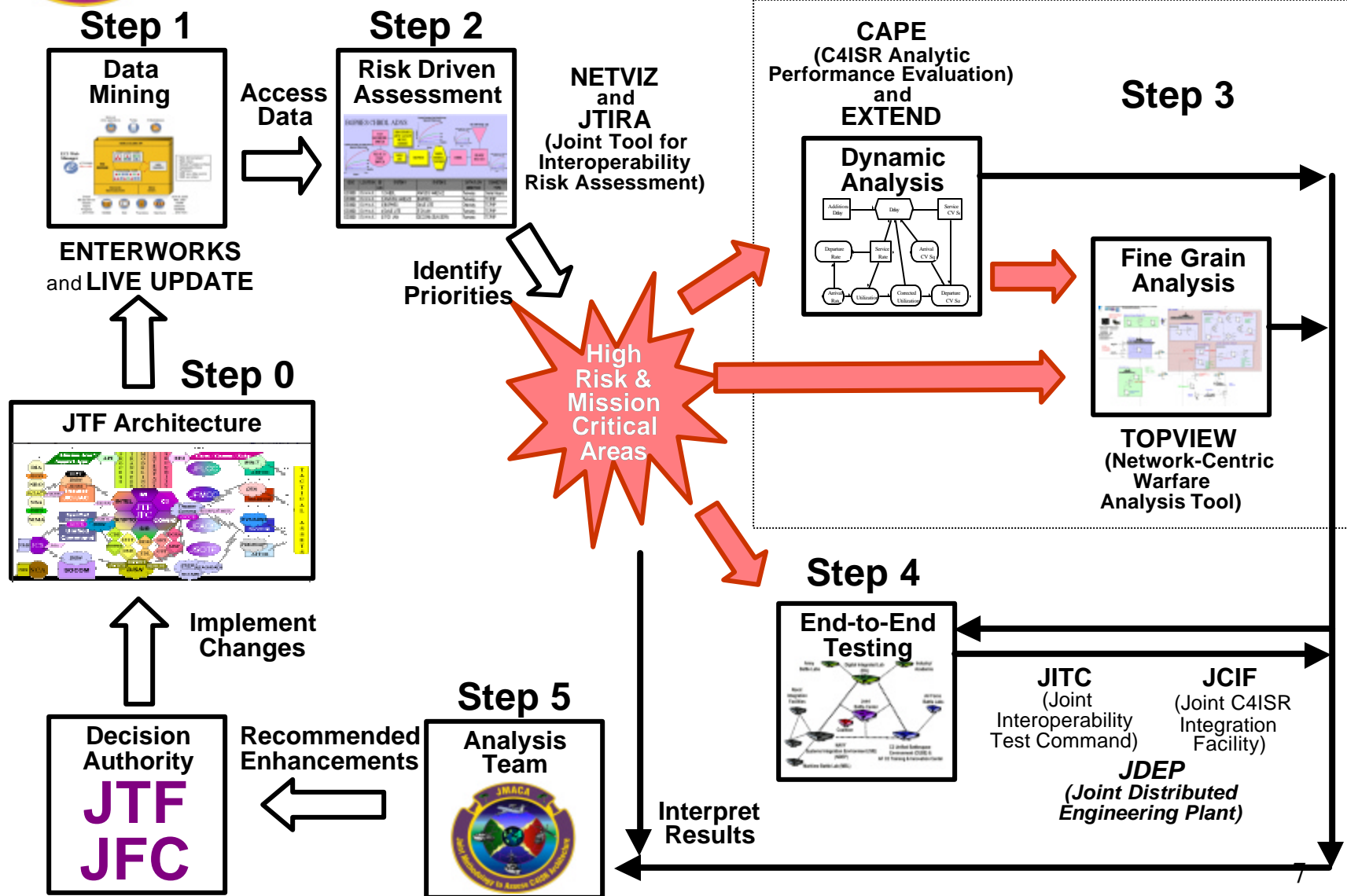
Where We Are Today

Key piece parts are being put in place





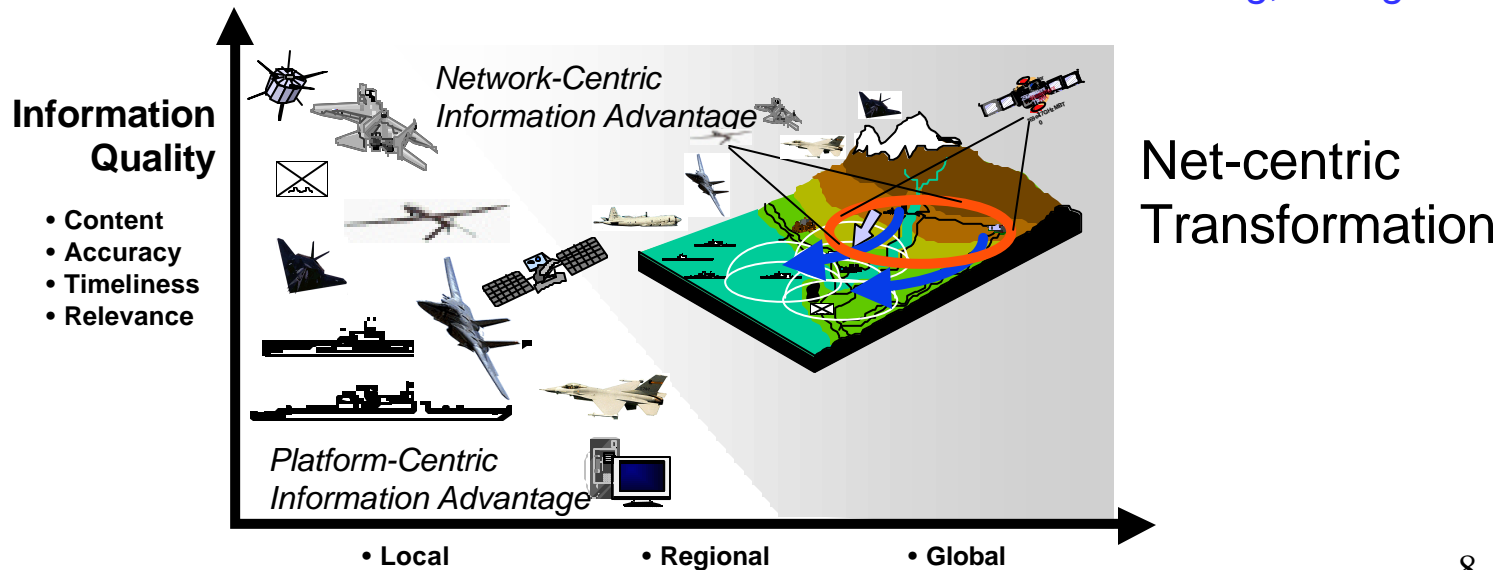
JMACA JT&E Methodology



The Way Ahead

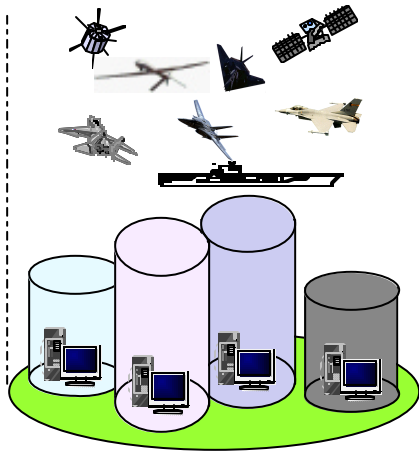
“The *two truly transforming things*, conceivably, might be in information technology and information operation and ***networking and connecting things in ways that they function totally differently than they had previously***. And if that's possible, what I just said, that possibly the ***single-most transforming thing*** in our force will not be a weapon system, but ***a set of interconnections*** and a substantially enhanced capability because of that awareness.”

SecDef Town Hall Meeting, 9 Aug 2001



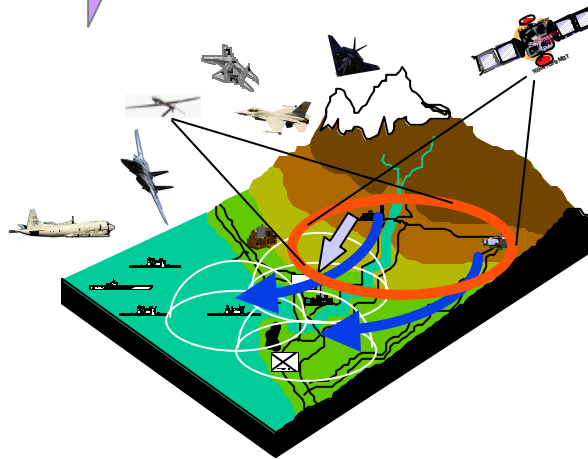
A Necessity: Interoperability and Beyond

Today Traditional Stove-Pipe Operation



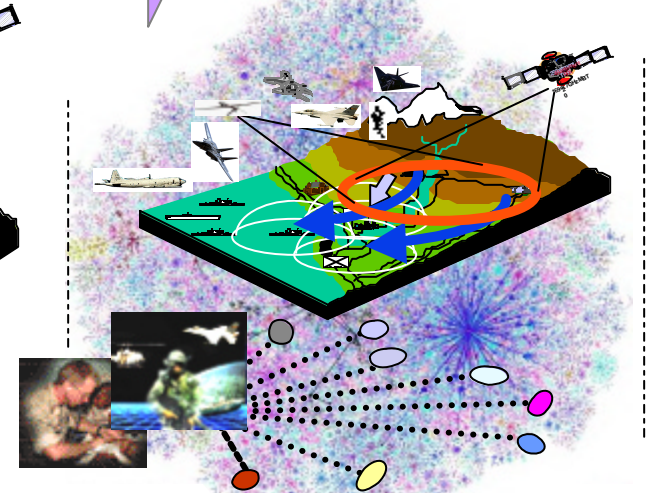
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FY03-07 Interoperable Transformation



Systems, units or forces provide **pre-engineered services** to and accept services from other systems, units or forces ...

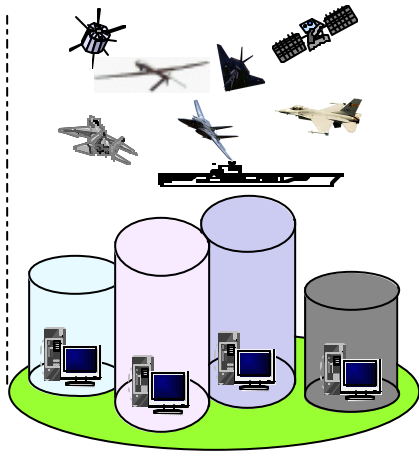
FY04-09 Net-centric Operation



People throughout the **trusted, dependable and ubiquitous network** are empowered by their ability to access information.

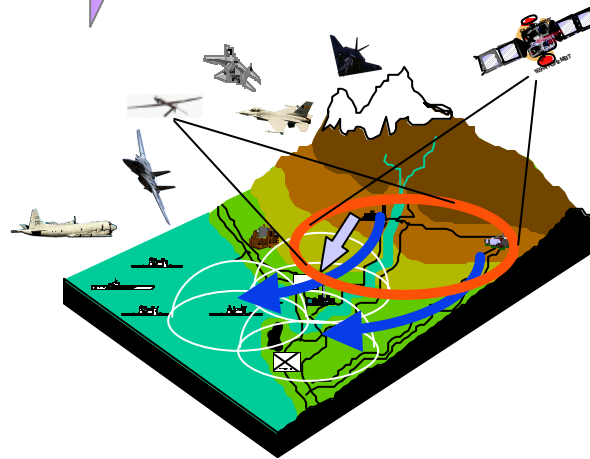
A Necessity: Interoperability and Beyond

Today Traditional Stove-Pipe Operation



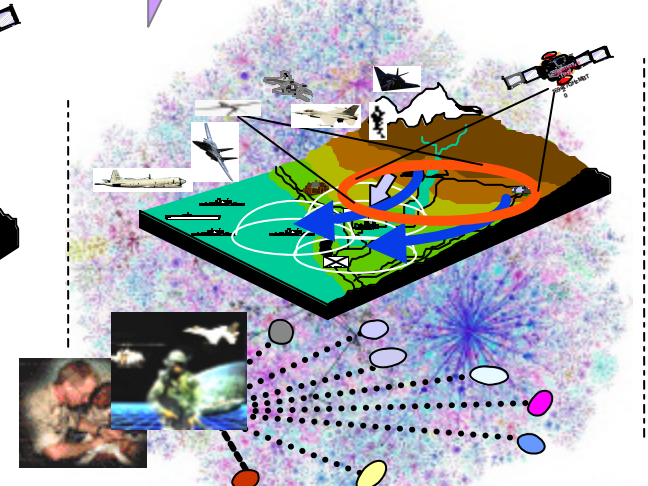
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FY03-07 Interoperable Transformation



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FY04-09 Net-centric Operation



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DoDD 4630.5 and DoDD 8000.1

DoD Direction on Architecture

4.4.2. Data and information shall be structured to enable full interoperability and integration across DoD operations and activities. Creation of duplicate data shall be minimized and to the extent possible **data shall be entered only once.** This increases data accuracy, decreases the need for resources to reconcile data from several sources, and promotes

“4.4.3. An integrated DoD architecture with operational, system, and technical views shall be developed, maintained, and applied to determine interoperability and capability requirements, promote standards, accommodate the accessibility and usability requirements of reference (k), and implement security requirements across the DoD enterprise to provide the basis for efficient and effective acquisition and operation ...”



Department of Defense
DIRECTIVE

NUMBER 8000.1
February 27, 2002

ASDR/CSO

Department of Defense Information Resources and Information Technology

DoD Directive 7740.1, "DoD Information Resources Management
Program," June 20, 1983 (hereby canceled)

DoD 7740.1-G, "Department of Defense ADP Internal Control
Guideline," July 19, 1988 (hereby canceled)

DoD Directive 8000.1, "Defense Information Management (DIM)
Program," October 27, 1992 (hereby canceled)

Public Law 104-13, "Paperwork Reduction Act" (Chapter 35 of title 44,
United States Code)

Enclosure (n), see enclosure 1

SCOPE/PURPOSE

GIG Architecture Version 2.0

GIG Arch
V1.0

GIG ARCHITECTURE VERSION 2.0

1

**SECDEF/CJCS COOP
(BASELINE)**

1A

**SECDEF/CJCS COOP
(BASELINE COMPLETE)**

2

**HOMELAND SECURITY AND
HOMELAND DEFENSE
(OBJECTIVE)**

3

**NETWORK-CENTRIC WARFARE
CT SWA (OBJECTIVE)**

4

**SECDEF/CJCS COOP
FORCE ALLOCATION
(OBJECTIVE)**

**KOREA WARFIGHTING
(BASELINE)**

GIIG Architecture Version 2.0

Network Centric Module

TIMEFRAME

2008-2010 (Objective or “Should Be”)

PERSPECTIVES

Strategic Use Case

The SecDef directing the deployment of military forces to an location adjacent to SWA

Operational Use Case

A JFC directing the the conduct of CT operations in SWA by joint and combined forces

Tactical Use Case

A SOF Detachment Commander executing reconnaissance and direct action missions in SWA

Challenges To Success

DoD Process	Challenge
Requirements	Interoperability KKP's are in early stage of use Role of architectures as a requirements document is embryonic IT deployment will evolve the requirements baseline
Acquisition	Key aspects of the acquisition process are vertically configured Cross-system issues do not naturally surface to decision makers Compliance with interoperability policy is disincentivized
Prog. & Budget	Current PPBS practice does not recognize the interdependencies that are needed for network centric operations
Info Resources Mgmt	Information Assurance could evolve into another stovepipe Security is not viewed as a basic data attribute A data management strategy is critical to net-centric operations

Implementing net-centric capabilities will require committed and active leadership